01-0512

Corporate Environmental Programs
General Electric Company
100 Woodlawn Avenue, Pittsfield, MA 01201

*Transmitted Via Federal Express*

August 28, 2002

Mr. Bryan Olson
EPA Project Coordinator
EPA New England
One Congress Street, Suite 1100
Boston, MA 02114-2023

**Re: GE-Pittsfield/Housatonic River Site**
**Building 71 On-Plant Consolidation Area (GECD200)**
**Design Modifications**

Dear Mr. Olson:

This letter presents proposed modifications to the General Electric Company's (GE's) Building 71 On-Plant Consolidation Area (OPCA) expansion design previously provided to the United States Environmental Protection Agency (EPA) in a letter dated March 27, 2002. In the design provided to the EPA, an existing deep water supply well, used by the Pittsfield Generating Company and located at the southern edge of the Building 71 OPCA, was to have been extended to accommodate the required elevation change. The Pittsfield Generating Company, however, has subsequently requested that the current elevation of the well be maintained and that an access area be constructed to accommodate future pump removal and maintenance activities. As a result, GE has prepared design modifications, which include a 1,750-square-foot equipment access area around the supply well, an approximately 100-foot-long retaining wall, and a revised anchor trench location for the OPCA expansion. Details regarding the proposed design modifications are discussed below.

Two preliminary retaining wall designs are currently under consideration by GE, including a gabion wall and a Keystone Block wall. These two retaining wall options were selected from numerous different wall types evaluated by GE based on several factors including ease of construction, cost, and the ability to install the wall incrementally as OPCA consolidation activities progress. Although GE is still evaluating the two options, GE is requesting EPA approval for both of the retaining wall designs and the modified anchor trench location presented herein. When GE decides on the final wall type, it will inform EPA of its decision.

The attached design drawing and figures provide the location and geometry of the two retaining walls, as well as the new equipment access area around the supply well and the modified berm and anchor trench configuration behind the retaining wall. Drawing Z-1 (formerly Drawing 5 from Attachment 1 to the March 27, 2002 letter) provides the proposed plan view of the area surrounding the well and the proposed retaining wall, and Figures 1 and 2 provide the cross-section and profile views of the gabion and Keystone Block walls, respectively.

As indicated on the drawing and figures, the modification to the anchor trench design entails moving the system approximately 10 to 15 feet behind the selected wall system. The actual anchor trench configuration will be identical to the anchor trench installed in other areas along the perimeter of the OPCA (i.e., only its location will change). As indicated above, the retaining wall design consists of either a gravity gabion basket wall or a Keystone Block wall (with geogrid reinforcement) to a maximum height of approximately 15 feet (including the subsurface portions). The height of the retaining wall to be constructed this year will approximate the berm elevation, as shown on the attached figures.

Currently, berm construction and liner installation is complete to within approximately 30 feet of either side of the supply well. Upon EPA approval of the design modifications, GE plans to solicit cost proposals from qualified contractors to perform the construction activities. Once a contractor is selected and EPA is notified of the selected wall type, the access area will be constructed, the perimeter berm reconfigured and the liner system secured in the new anchor trench, and the retaining wall system will be installed to the height of the perimeter berm (approximately 5 feet tall). The wall height will be extended during subsequent years of active consolidation activities and constructed to its final height during final cover installation activities.

Please call with any questions or concerns regarding these design modifications.

Sincerely,

John F. Novotny /lmd

John F. Novotny, P.E.
Manager – Facilities & Brownfields Programs

LKB/lmd
Attachments

cc: Tim Conway, Esq., EPA
Michael Nalipinski, EPA*
Holly Inglis, EPA*
Rose Howell, EPA
K.C. Mitkevicius, USACE
Dawn Jamros, Weston*
Thomas Angus, MDEP
Robert Bell, Esq., MDEP
Susan Steenstrup, MDEP*
Alan Weinberg, MDEP
Susan Keydel, MDEP*
Nancy E. Harper, Esq., MA AG
Dale Young, MA EOEA
Teresa Bowers, Gradient
Rod McLaren, Esq., GE
Michael Carroll, GE
Andrew Silfer, P.E., GE*
Mayor Sara Hathaway, City of Pittsfield
Michael Cartney, Pittsfield Generating Co.*
Scott LeBeau, General Dynamics*
James Nuss, P.E.,LSP, BBL*
James Bieke, Esq., Shea & Gardner*
Jeffrey Bernstein, Esq., Bernstein, Cushner & Kimmel
Public Information Repositories*

(*w/attachments)

# *Attachment 1*

# Building 71 OPCA Subgrade Plan

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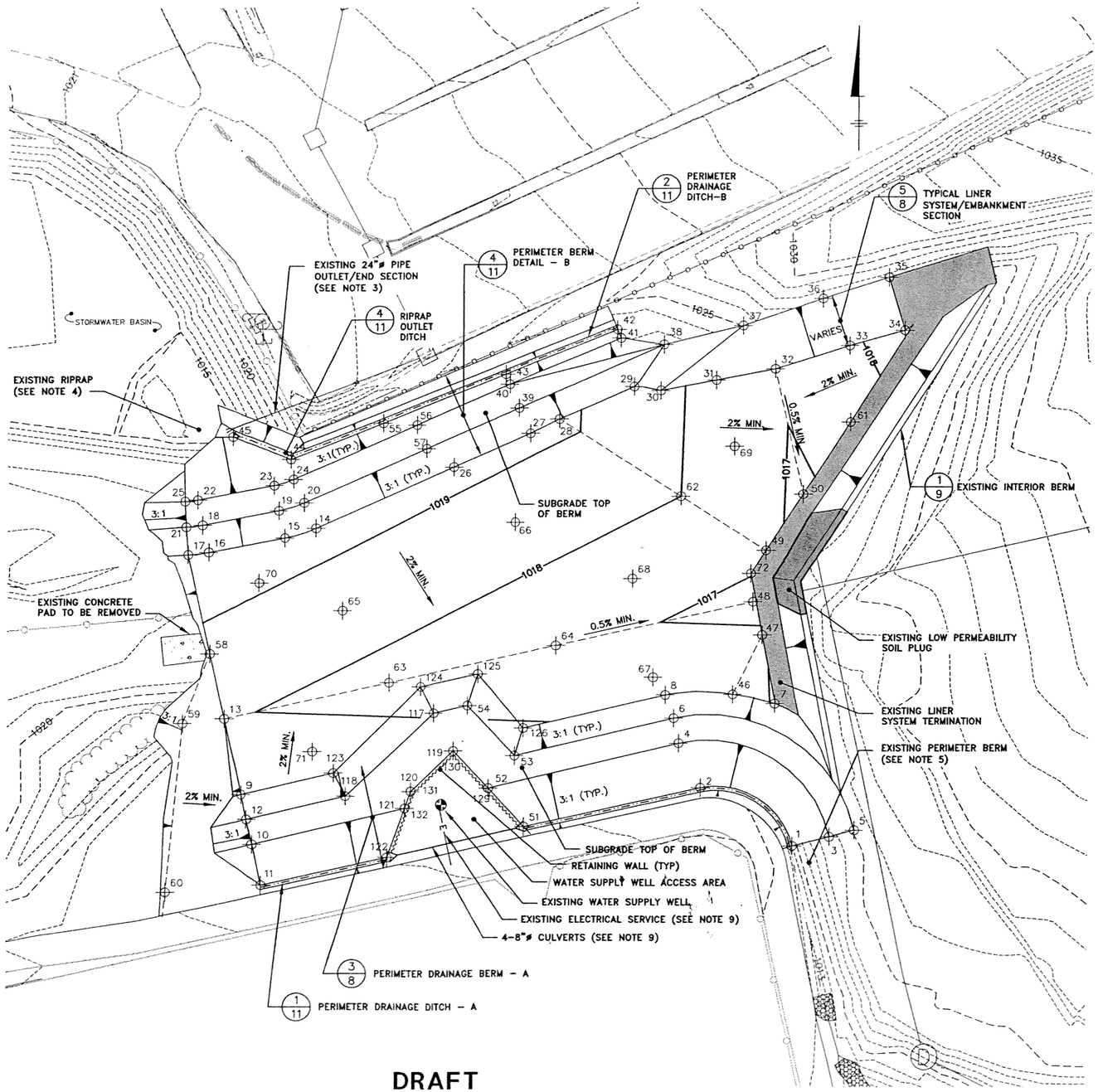
*engineers & scientists*




| SURVEY CONTROL INFORMATION CONSTRUCTION POINTS | | | | | | |
|---|---|---|---|---|---|---|
| POINT NO. | NORTHING | EASTING | EXISTING ELEV. | PROP. ELEV. | AS–BUILT ELEV.* | DESCRIPTION |
| 1 | 535635.90 | 136618.38 | 1014.4 | 1013.47 | | BERM TOE |
| 2 | 535664.16 | 136573.99 | 1016.0 | 1013.78 | | BERM TOE |
| 3 | 535640.32 | 136635.83 | 1019.5 | 1019.47 | | BERM CREST |
| 4 | 535685.68 | 136563.40 | 1016.7 | 1021.65 | | BERM CREST |
| 5 | 535643.49 | 136647.83 | 1020.6 | 1019.47 | | BERM CREST |
| 6 | 535697.86 | 136561.01 | 1017.8 | 1021.65 | | BERM CREST |
| 7 | 535704.81 | 136609.74 | 1019.7 | 1016.91 | | BERM TOE |
| 8 | 535709.10 | 136556.91 | 1016.7 | 1017.70 | | BERM TOE |
| 9 | 535660.94 | 136352.37 | 1018.7 | 1018.80 | | BERM TOE |
| 10 | 535636.83 | 136357.72 | 1018.5 | 1022.90 | | BERM CREST |
| 11 | 535617.15 | 136362.08 | 1018.5 | 1016.17 | | BERM TOE |
| 12 | 535648.93 | 136355.03 | 1018.6 | 1022.90 | | BERM CREST |
| 13 | 535697.60 | 136344.24 | 1021.9 | 1018.08 | | FLOOR |
| 14 | 535789.95 | 136387.83 | 1018.3 | 1019.33 | | BERM TOE |
| 15 | 535785.24 | 136373.01 | 1018.1 | 1019.38 | | BERM TOE |
| 16 | 535778.28 | 136336.57 | 1017.6 | 1019.58 | | BERM TOE |
| 17 | 535777.07 | 136326.70 | 1016.8 | 1019.65 | | BERM TOE |
| 18 | 535791.42 | 136333.56 | 1018.1 | 1024.08 | | BERM CREST |
| 19 | 535798.42 | 136370.02 | 1019.4 | 1023.88 | | BERM CREST |
| 20 | 535802.27 | 136382.18 | 1019.8 | 1023.84 | | BERM CREST |
| 21 | 535790.49 | 136325.76 | 1017.6 | 1024.14 | | BERM CREST |
| 22 | 535803.60 | 136331.22 | 1018.5 | 1024.08 | | BERM CREST |
| 23 | 535810.60 | 136367.68 | 1020.6 | 1023.88 | | BERM CREST |
| 24 | 535813.58 | 136377.10 | 1021.0 | 1023.85 | | BERM CREST |
| 25 | 535802.88 | 136325.18 | 1018.1 | 1024.13 | | BERM CREST |
| 26 | 535819.45 | 136454.54 | 1019.8 | 1019.25 | | BERM TOE |
| 27 | 535835.69 | 136491.42 | 1020.4 | 1019.20 | | BERM TOE |
| 28 | 535842.59 | 136505.15 | 1020.8 | 1019.20 | | BERM TOE |
| 29 | 535858.33 | 136541.19 | 1021.2 | 1018.49 | | BERM TOE |
| 30 | 535856.47 | 136554.04 | 1020.7 | 1018.23 | | EMBANK TOE |
| 31 | 535861.45 | 136580.84 | 1021.4 | 1017.70 | | EMBANK TOE |
| 32 | 535866.82 | 136609.07 | 1021.3 | 1017.14 | | EMBANK TOE |
| 33 | 535877.99 | 136644.40 | 1020.4 | 1017.87 | | EMBANK TOE |
| 34 | 535885.26 | 136671.27 | 1020.1 | 1018.42 | | EMBANK TOE |
| 35 | 535910.83 | 136663.41 | 1027.4 | 1027.10 | | EMBANK CREST |
| 36 | 535900.81 | 136631.41 | 1027.3 | 1025.86 | | EMBANK CREST |
| 37 | 535887.77 | 136593.63 | 1025.2 | 1024.77 | | EMBANK CREST |
| 38 | 535878.67 | 136555.49 | 1022.4 | 1022.41 | | BERM CREST |
| 39 | 535848.07 | 136485.97 | 1021.3 | 1023.71 | | BERM CREST |
| 40 | 535859.58 | 136481.35 | 1022.1 | 1023.71 | | BERM CREST |
| 41 | 535881.81 | 136534.70 | 1023.2 | 1024.91 | | BERM CREST |
| 42 | 535885.97 | 136532.96 | 1023.5 | 1023.41 | | BERM TOE |
| 43 | 535864.44 | 136479.39 | 1022.4 | 1021.98 | | BERM TOE |
| 44 | 535823.28 | 136375.76 | 1021.7 | 1020.74 | | BERM TOE |
| 45 | 535834.16 | 136347.77 | 1016.8 | 1015.00 | | BERM TOE |
| 46 | 535709.35 | 136589.53 | 1017.3 | 1017.55 | | BERM TOE |
| 47 | 535738.02 | 136603.54 | 1019.8 | 1017.09 | | FLOOR |
| 48 | 535754.12 | 136599.02 | 1018.9 | 1016.77 | | FLOOR |
| 49 | 535778.94 | 136605.09 | 1019.1 | 1017.16 | | FLOOR |
| 50 | 535806.11 | 136622.54 | 1018.8 | 1016.83 | | FLOOR |

| SURVEY CONTROL INFORMATION CONSTRUCTION POINTS | | | | | | |
|---|---|---|---|---|---|---|
| POINT NO. | NORTHING | EASTING | EXISTING ELEV. | PROP. ELEV. | AS–BUILT ELEV.* | DESCRIPTION |
| 51 | 535645.34 | 136489.17 | 1017.3 | 1014.74 | | BERM TOE |
| 52 | 535663.92 | 136471.78 | 1017.8 | 1022.21 | | BERM CREST |
| 53 | 535679.67 | 136484.43 | 1018.0 | 1022.12 | | BERM CREST |
| 54 | 535704.00 | 136461.65 | 1020.4 | 1022.22 | | BERM CREST |
| 55 | 535840.76 | 136419.84 | 1021.7 | 1021.27 | | BERM TOE |
| 56 | 535839.77 | 136436.32 | 1021.3 | 1023.77 | | BERM CREST |
| 57 | 535828.31 | 136441.07 | 1020.5 | 1023.77 | | BERM CREST |
| 58 | 535729.05 | 136337.26 | 1018.3 | 1018.70 | | FLOOR |
| 59 | 535695.31 | 136324.37 | 1022.1 | 1018.38 | | EDGE ACCESS |
| 60 | 535613.68 | 136316.49 | 1018.7 | 1018.00 | | EDGE ACCESS |
| 61 | 535840.92 | 136644.89 | 1019.2 | 1017.54 | | FLOOR |
| 62 | 535805.18 | 136563.89 | 1017.6 | 1018.00 | | FLOOR |
| 63 | 535715.10 | 136423.13 | 1020.2 | 1017.67 | | FLOOR |
| 64 | 535733.04 | 136504.02 | 1017.4 | 1017.26 | | FLOOR |
| 65 | 535750.05 | 136400.52 | 1018.0 | 1018.50 | | FLOOR |
| 66 | 535792.68 | 136484.25 | 1018.3 | 1018.50 | | FLOOR |
| 67 | 535717.60 | 136550.96 | 1016.4 | 1017.53 | | FLOOR |
| 68 | 535765.36 | 136540.79 | 1016.7 | 1017.50 | | FLOOR |
| 69 | 535829.29 | 136589.74 | 1017.9 | 1017.50 | | FLOOR |
| 70 | 535763.47 | 136360.64 | 1017.3 | 1019.10 | | FLOOR |
| 71 | 535681.70 | 136386.54 | 1018.9 | 1018.36 | | FLOOR |
| 72 | 535767.84 | 136597.96 | 1018.0 | 1017.03 | | FLOOR |
| 117 | 535700.34 | 136445.17 | 1021.3 | 1022.31 | | BERM CREST |
| 118 | 535660.15 | 136402.25 | 1018.2 | 1022.62 | | BERM CREST |
| 119 | 535682.00 | 136454.85 | 1018.6 | 1022.28 | | BERM CREST |
| 120 | 535662.39 | 136433.90 | 1017.9 | 1022.43 | | BERM CREST |
| 121 | 535654.23 | 136430.97 | 1017.9 | 1022.46 | | BERM CREST |
| 122 | 535630.55 | 136422.47 | 1017.8 | 1015.49 | | BERM TOE |
| 123 | 535671.32 | 136396.48 | 1018.4 | 1018.57 | | BERM TOE |
| 124 | 535713.15 | 136438.68 | 1020.1 | 1017.70 | | BERM TOE |
| 125 | 535719.26 | 136466.60 | 1018.8 | 1017.56 | | BERM TOE |
| 126 | 535693.03 | 136488.65 | 1020.1 | 1018.07 | | BERM TOE |
| 129 | 535663.92 | 136471.78 | 1017.8 | 1017.3 | | RET.WALL@GRADE |
| 130 | 535682.00 | 136454.85 | 1018.6 | 1018.00 | | RET.WALL@GRADE |
| 131 | 535662.39 | 136433.90 | 1017.9 | 1018.00 | | RET.WALL@GRADE |
| 132 | 535654.23 | 136430.97 | 1017.9 | 1017.82 | | RET.WALL@GRADE |

* AS–BUILT INFORMATION TO BE COMPLETED BY CONTRACTOR AND INCLUDED WITH RECORD DRAWINGS.

| SURVEY CONTROL INFORMATION CONSTRUCTION RADIUS | |
|---|---|
| ARC SEGMENT (POINT NO.) | RADIUS (FT.) |
| 3 TO 4 | 60.0 |
| 5 TO 6 | 72.4 |
| 18 TO 21 | 55.0 |
| 19 TO 20 | 55.0 |

LEGEND

- RETAINING WALL
- 1018 — PROPOSED CONTOUR LINE
- × 1018.2 — SPOT ELEVATION
- CHANGE–IN–GRADE
- PERIMETER DRAINAGE DITCH
- 1/8 — DETAIL REFERENCE NUMBER
- DRAWING REFERENCE NUMBER
- 1 — CONSTRUCTION SURVEY CONTROL POINT (SEE TABLE ON THIS DRAWING)

NOTES:

1. REFER TO DRAWING NO. 1 OF ATTACHMENT 1 FROM 2002 OPCA CONSTRUCTION AND CONSOLIDATION ACTIVITIES (MARCH, 2002) FOR ADDITIONAL BASE MAP INFORMATION.
2. PROPOSED GRADES/ELEVATIONS SHOWN WITHIN INBOARD CREST OF BERMS AND EMBANKMENT REPRESENT TOP OF SUBGRADE. ALL OTHER PROPOSED GRADES/ELEVATIONS REPRESENT FINAL GRADE.
3. CONTRACTOR SHALL NOT DAMAGE THE EXISTING 24"ø OUTLET PIPE AND END SECTION. ANY MODIFICATIONS TO THE OUTLET PIPE AND END SECTION DEEMED NECESSARY BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF GE FOR REVIEW AND APPROVAL PRIOR TO THE INITIATION OF THE WORK.
4. EXISTING RIP RAP AND GEOTEXTILE TO BE REMOVED AS NECESSARY TO FACILITATE RIP RAP OUTLET DITCH CONSTRUCTION. REMOVED RIP RAP TO BE REUSED IN NEW RIP RAP OUTLET DITCH.
5. ADDITIONAL GRADING FOR TIE–IN OF NEW PERIMETER BERM WITH EXISTING PERIMETER BERM MAY BE REQUIRED (NOT SHOWN).
6. CONTRACTOR SHALL VERIFY SUBGRADE/LINER SYSTEM/LEACHATE COLLECTION PIPE TIE–IN CONDITIONS ARE IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS PRIOR TO THEIR CONSTRUCTION. DISCREPANCIES IDENTIFIED BY THE CONTRACTOR SHALL
7. SURVEY TOLERANCE IS ±0.05' UNLESS OTHERWISE APPROVED BY GE OR GE'S REPRESENTATIVE.
8. CONTRACTOR SHALL NOTE THAT ALTHOUGH A PRE–CONSTRUCTION SURVEY HAS BEEN PERFORMED BY OTHERS, ANY NOTED DISCREPANCIES SHALL BE BROUGHT TO GE'S ATTENTION AND ADDRESSED ACCORDINGLY.
9. CULVERT PIPES SHALL BE ADS N–12 OR APPROVED EQUAL AND INSTALLED BELOW EXISTING ELECTRICAL SERVICE. PIPE INLETS AND OUTLETS TO BE ESTABLISHED AS NEAR (AT OR BELOW) TO ELEVATIONS FOR POINTS 122 AND 51 RESPECTIVELY. WIDTH OF PERIMETER DRAINAGE DITCH AT CULVERT INLET AND OUTLET TO BE CONSTRUCTED AS REQUIRED TO ACCOMMODATE CULVERT PIPES. UPGRADIENT AND DOWN GRADIENT DITCH INVERTS TO BE GRADED AS NECESSARY TO PROVIDE A UNIFORM FLOW TRANSITION BETWEEN CULVERT PIPES AND DITCH. CULVERT PIPES TO BE BACK FILLED WITH CONCRETE (4,000 PSI) TO FINISH GRADE (MATCH TO EXISTING PAVEMENT AND GRADES WITHIN SUPPLY WELL ACCESS AREA).

DRAFT

NOT FOR CONSTRUCTION

X: 40136X01.DWG
L: ON=*, OFF=REF*
P: PAGESET/PLT-CDL
8/28/02 SYR-54-KMD DJP GMS
C/40136040/40136G17.DWG

Graphic Scale 30' 0 30' 60'

THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

| No. | Date | Revisions | Init |
|---|---|---|---|

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

Project Mgr. _WAR_
Designed by _PHB_
Drawn by _KMD/NES/LAF_
Checked by _WAR_
Prof. Eng. _JAMES M. NUSS_
PE License _STATE OF MASS._

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

GENERAL ELECTRIC COMPANY • PITTSFIELD, MASSACHUSETTS
2002 OPCA CONSTRUCTION AND CONSOLIDATION ACTIVITIES

# BUILDING 71 OPCA SUBGRADE PLAN

GENERAL

File Number 401.36.XXF
Date AUGUST 2002

Blasland, Bouck & Lee, Inc.
Corporate Headquarters
6723 Towpath Road
Syracuse, NY 13214
315–446–9120

1

# *Attachment 2*

# Building 71 OPCA Preliminary Design – Gabion Wall

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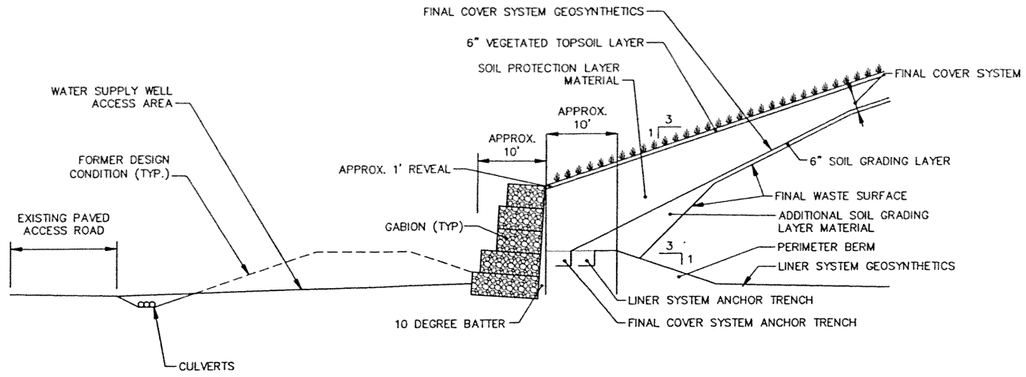
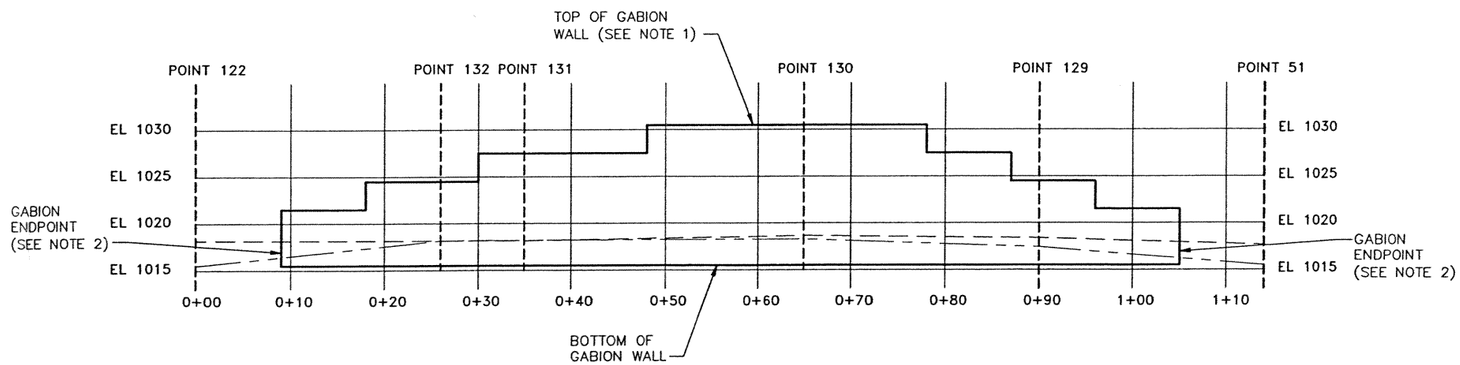
*engineers & scientists*




## GABION WALL CROSS-SECTION IN WATER SUPPLY WELL ACCESS AREA

NOT TO SCALE




NOTE:

1. ACTUAL ELEVATION OF GABION WALL AND NUMBER OF GABIONS AT A GIVEN LOCATION MAY VARY BASED ON ACTUAL FIELD CONDITIONS.
2. ACTUAL ENDPOINT OF GABION WALL TO BE DETERMINED IN THE FIELD.

## GABION WALL PROFILE

GRAPHIC SCALE

DRAFT

NOT FOR CONSTRUCTION

L: ON=*, OFF=*REF*
P: PAGESET/PLT-DL
8/28/02 SYR-54-NES LAF GMS
C/40136040/40136G15.DWG

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
2002 OPCA CONSTRUCTION AND CONSOLIDATION ACTIVITIES

**BUILDING 71 OPCA PRELIMINARY DESIGN - GABION WALL**

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FIGURE 2

# *Attachment 3*

# Building 71 OPCA Preliminary Design – Keystone Block Wall

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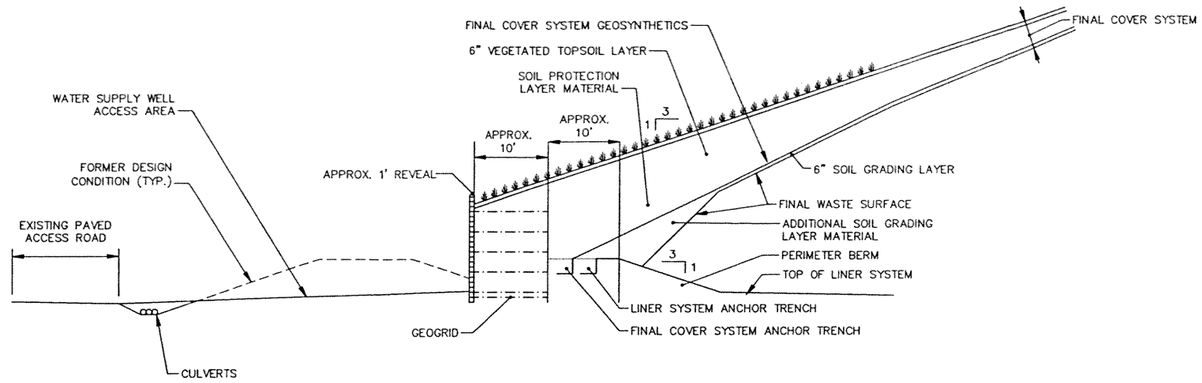
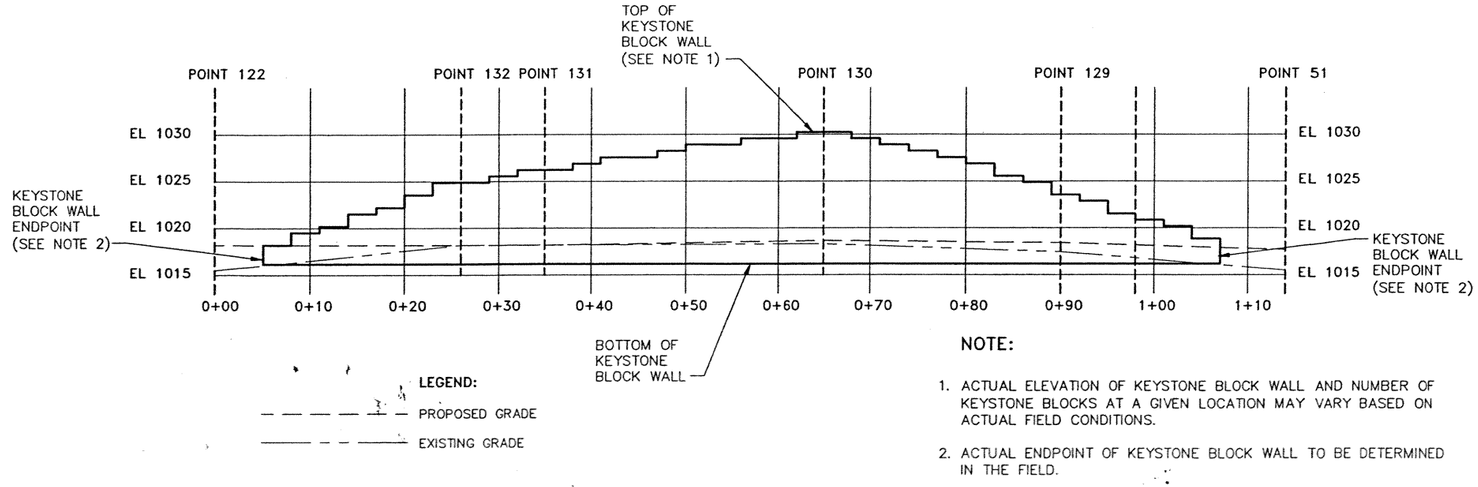
*engineers & scientists*




## KEYSTONE BLOCK WALL CROSS-SECTION IN WATER SUPPLY WELL ACCESS AREA

NOT TO SCALE




NOTE:

1. ACTUAL ELEVATION OF KEYSTONE BLOCK WALL AND NUMBER OF KEYSTONE BLOCKS AT A GIVEN LOCATION MAY VARY BASED ON ACTUAL FIELD CONDITIONS.
2. ACTUAL ENDPOINT OF KEYSTONE BLOCK WALL TO BE DETERMINED IN THE FIELD.

## KEYSTONE BLOCK WALL PROFILE

0 8' 16'
GRAPHIC SCALE

DRAFT

NOT FOR CONSTRUCTION

L: ON=*; OFF=*REF*
P: PAGESET/PLT-DL
8/28/02 SYR-54-NES LAF GMS
C/40136040/40136G16.DWG

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
2002 OPCA CONSTRUCTION AND CONSOLIDATION ACTIVITIES

**BUILDING 71 OPCA PRELIMINARY DESIGN - KEYSTONE BLOCK WALL**

BBL BLASLAND, BOUCK & LEE, INC. engineers & scientists

FIGURE 3